COPY

IN THE SPECIFICATION:

Please amend the specification as follows:

Please replace paragraph beginning at page 6, line 17, with the following rewritten paragraph:

fig. 1 shows the principle of dual ~~slope integration~~ read as used in the invention,

Please replace paragraph beginning at page 7, line 4, with the following rewritten paragraph:

fig. 4 a circuit diagram of a sensing device with dual ~~slope integration~~ read according to a preferred embodiment of the invention.

Please replace paragraph beginning at page 7, line 11, with the following rewritten paragraph:

(II) Dual read whereby a second read is subtracted from a first read to determine a stored value. The advantage is that common offsets/mismatches are removed. The word line WL is pulsed twice and sensing is performed during each time the word line WL ~~being~~ is high.

Please replace paragraph beginning at page 8, line 19, with the following rewritten paragraph:

Fig. ~~3~~ 3a shows schematically the principal functional components of a sensing device 10 according to the invention, providing dual read covering both the above-described principal sensing schemes (I) and (II). First a read, typically an integration of the current I_{BL} on the bit line BL is performed by an integrator circuit 11 (inside the dashed line) comprising an integrating amplifier 12 with a non-inverting input 13 and an inverting input 14, and a feedback capacitor C1 connected in parallel between the non-inverting input 14 and the output of the amplifier 12. First and second read values output from the integrating circuit 11 are stored in first and second sample/hold circuits 16;17 respectively. Each sample/hold circuit 16;17 has an input for a control signal CTRL1; CTRL2. A comparator, preferably an operational amplifier 18 is connected with sample/hold circuit 16 via its non-inverting input 19 and via its inverting input 20 with sample/hold circuit 17. The comparator compares two stored read values sensed in the dual read and generates the comparison as a data output signal on its output D_{out}.

Please replace paragraph beginning at page 14, line 9, with the following rewritten paragraph:

The dual ~~slope integration~~ read particularly addresses a wide number of potential problems in ferroelectric memories with a polymer memory material. First, the comparison can be established with a margin close to zero. Consequently, in a fatigued memory cell where the charge is released at a lower level and occurs slower, the sensing device will still distinguish the state since the total charge released in a first time period is greater than that released in a subsequent (equivalent) time period. There is no need for a-priori knowledge of the level of fatigue to properly sense the memory cell value. Similarly, following imprint, the absolute magnitude of the charge released in any given first time period is reduced due to the shift in the coercive field, but the relative value is still ordered. Again, the state of the memory cell can be determined with the dual ~~slope integration~~ read without knowledge of the imprint magnitude.